



Strengthening of Small-Scale Farmers' and Pastoralists' Market System in Tanzania

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Received: July 16, 2021

Published: August 06, 2021

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Abstract

The agricultural sector is the most important sector for realizing economic development, creating employment opportunities and reducing poverty in developing countries. In Tanzania, the agricultural sector is one of the most leading sectors which contributes to 25.88% of the Gross Domestic Product (GDP) of the national economy and about 35% of the foreign exchange earnings. The sector offers an employment opportunity of more than 91% of the total number of people living in both rural and urban areas. Despite the significance, the livelihood of the small-scale farmers and pastoralists in the country is at a poor living standard. This study investigating the main sources of the poor living standard of most small-scale farmers and pastoralists in the country by collecting data from small-scale farmers using a structured interview and questionnaire. After data analysis, findings revealed that lack of application of Science, Technology, and Innovation in agricultural sectors leads to little production of crops and poor quality of the product produced by the small-scale farmers. Moreover, the lack of centralized market systems for the products produced by the farmers and pastoralists leads them to sell their products at unsatisfied prices. To improve the livelihood of small-scale farmers and pastoralists for the sustainable development of the county the study recommends policymakers educate the small-scale farmers and pastoralists on how to apply modern digital technology to maximize production. However, the government through the ministry of agriculture has to implement a centralized national market system to set and control prices of the products produced by the small-scale farmers and pastoralists.

Keywords: Strengthening of Small-Scale Farmer's and Pastoralists; Centralized National Markets System

Introduction

Agriculture is the art and science of cultivating plants, keeping livestock for the sustainable development of the nation [1]. In Tanzania, the sector of agriculture is dominated by small-scale farmers and pastoralists whose production processes are characterized by less application of modern technology and innovation [2]. According to the National Bureau of Statistics [NBS], the sector of agriculture is the mainstay of the national economy [3]. It plays a significant role by contributing to the national Gross Domestic Product[GDP], safeguarding food security to the citizens, and offers employment opportunities to the most number of people living in both rural and urban areas [4]. Every year, the govern-

ment through the Parliament of Tanzania, prepare a budget for the Ministry of Agriculture with a priority of transforming agriculture sectors to maximize the production of crops, livestock, and horticulture activities to improve the livelihood of the small-scale farmers and pastoralists for the sustainable development of the country [5]. Despite the innovation of the government, of maximizing the production for the small-scale farmers and pastoralists, most small-scale farmers in the country strive to sell their crop products produced to the brokers who force them to use an extra volume popularly known as Rumbesa or Kiroba at a low price [6]. While Pastoralists in rural areas used to sell their animals at their home places or to the local markets [7]. Moreover, due to the poor liveli-

hood of the small-scale farmers accompanied by the environments, some of the small-scale farmers' forced to sell their crop products on farms before post-harvesting time [8].

Lack of centralized farmers' and Pastoralists' market whereby prices of crop products are controlled by the government is a challenge towards an effort of the government of improving the livelihood of the small-scale farmers and pastoralists in the country. This study aimed to contribute public knowledge to the government through the ministry of agriculture and policymakers on the transformation of the agricultural sector in the country for the development of the small-scale farmers and pastoralists in respect to the United Nations sustainable development goals of the 2030 agenda.

Limitation of the existing farmers' local markets

Most of the small-scale farmers and pastoralists live in rural areas whereby there are no reliable sources of information regarding the prices of the products they produce. The small-scale farmers and pastoralists mostly depend on the local markets whereby they can sell their products within themselves or from the crop and animal small entrepreneurs who also used to sell to the other small entrepreneurs. The existing local markets force the small-scale farmers to sell their crop products using an extra volume known as Rumbesa or Ujazo wa Kiroba with little price [9]. Figure 1 below shows a picture of the small-scale farmers ready to sell the prepared onions with an extra volume at a farm place.



Figure 1: A prepared onions with an extra volume for sale.

Tanzania national agricultural trade policy

In 2006, the government of Tanzania formulated the first Agriculture Sector Development Programme (ASDP) [12]. The ASDP policy aimed to foster the transformation of the agricultural production system to reduce poverty among the small-scale farmers whose lives income depends on agricultural activities and livestock keeping [4]. The national agricultural policy aimed to maximize the crop and livestock production of small-scale farmers and pastoralists for the sustainable development of the country. However, despite the National Agricultural Trade Policy, there is a high demand for implementing a centralized national markets system for setting, controlling and monitoring all prices of the products produced to improve the livelihood of the small-scale farmers and pastoralists in the country.

Materials and Methods

Study area

This study was conducted in the Meru Districts and Arusha Council in Arusha region from April 2021 to June 2021. The Arusha region consists of seven districts which are Meru Districts, Arusha Council, Longido District, Ngorongoro District, Karatu District, and Monduli District. Farming and livestock keeping is the most dominant social and economic activities of the Arusha citizens. Figure 2 below is a map of the Arusha region showing Meru Districts and Arusha Council.

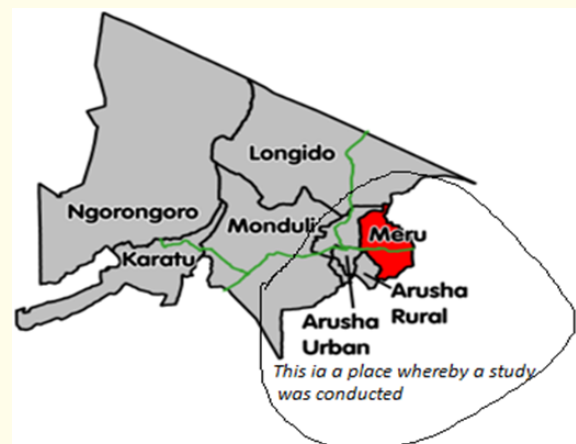


Figure 2: A map showing Meru districts and Arusha council whereby a study was conducted (Sources: The World Factbook).

Demographic characteristics of the study area

Arusha region is located at a northern zone of Tanzania whereby most of the tribe who deals with pastoralists activities are Maasai, Waarusha, and Wameru. Among the citizens of Arusha, the most leading ethnic economies of Maasai is on animal keeping. Figure 3 shows a picture of animals and houses for the Maasai.



Figure 3: Living Standard of Maasai
(Sources: <https://www.bbc.com/staticarchive/900f19ce43e4e0abf54a952f53efe87092b5d1e4.jpg>).

Sampling techniques

The study used purposely sampling techniques to select Meru Districts and Arusha Council from seven other districts of the Arusha region for the case study. To effectively collect reliable data from the small-scale farmers and pastoralists stakeholders in local markets the study selected the Meru Districts and Arusha Council. Moreover, the study used a random sampling technique used to select local markets from the Meru districts and Arusha Council for collecting reliable data for investigation.

Data collection methods

To ensure the reliability of the research findings, the study used structured interviews and questionnaires to collect data from the small-scale farmers, pastoralists, agricultural and animal businesses man. Figure 4 shows an image of the agricultural businessman while at the market displaying prices of various crop products ready for sale.

Data analysis and interpretation

Data collected from the respondents were analyzed using Pandas Python data analysis software and reported in graphs to reveal the findings discovered for further discussion.



Figure 4: Displayed prices of various agricultural products at the local markets ready for sale (Sources: Global publishers.co.tz).

Results and Discussion

The study distributed questionnaires to the small-scale farmers and pastoralists to gather data to investigate their awareness of the available modern agricultural technology for the maximation of crop and animal productions. After data analysis, 84.9% of the respondents said they are not aware of the available modern agricultural technology which suits their agricultural and pastoralists’ activities, 10.4% of the respondents said they are aware of the technology available for modern agricultural activities but it does not suit their environment, while 5.2% of the respondents said they are aware of the available modern agricultural technology but it is expensive simply because it requires them to invest a lot of money. Figure 5 demonstrates the findings of the Small-Scale Farmers and Pastoralists.

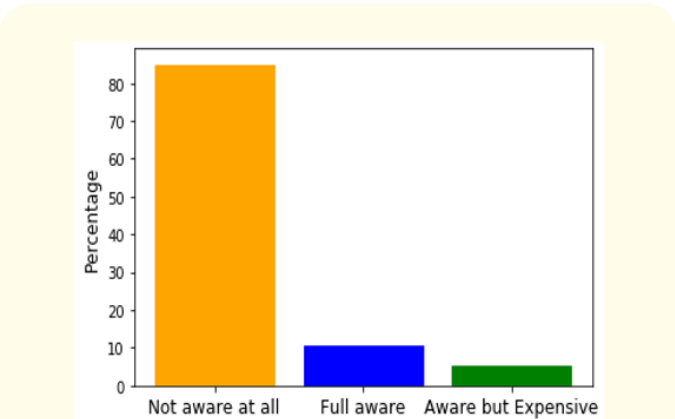


Figure 5: Respondents from the small-scale farmers and pastoralists.

To investigate why most small-scale farmers and Pastoralists are reluctant to the adoption of modern agricultural technology. The study used a structured interview to collect data to investigate factors on why most small-scale farmers and Pastoralists are reluctant to the adoption of modern agricultural technology despite the benefits offered by modern agricultural technology which includes maximization of the production of crops and animals for the effective improvement of their livelihoods. After data analysis, 45.3% of the respondents said the available agricultural technology does not suit their environments, 36.8% of the respondents said they do not have enough capital for investing in modern agricultural technology, while 17.9% of the respondents said their not trained enough to know about applying modern agricultural technology. Figure 6 below describes the findings of the data collected from the small-scale farmers and Pastoralists.

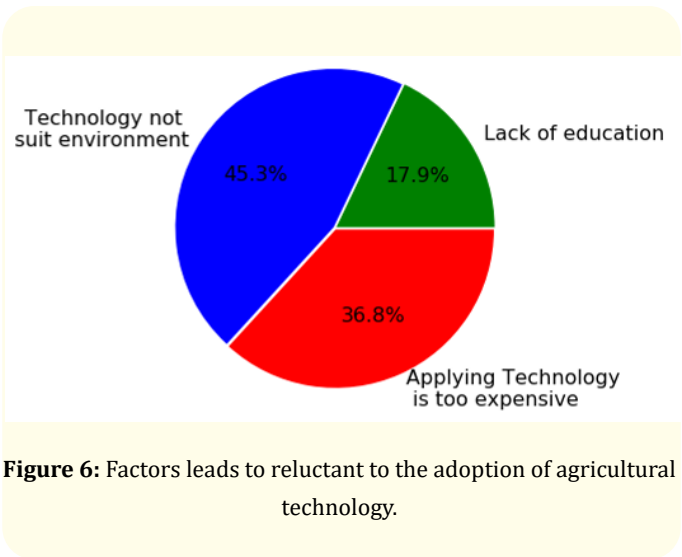


Figure 6: Factors leads to reluctant to the adoption of agricultural technology.

The study wanted to discover the knowledge of why most small-scale farmers prefer to use local markets to sell their crop products. In this respect, data was collected from the small-scale farmers and Pastoralists who deal with crop production, livestock keeping, and horticulture activities using a structured interview. After data analysis, 77.4% of the respondents said there are no other available farm markets which are nearby their living environments, 14.2% said that the local markets facilitate them on transporting their crop products with a little cost, while 8.4% of the respondents

said they do not have any knowledge on why they prefer to sell their crops product to the local markets. Based on data analysis and interpretation from the respondents, the study discovered that there is a high demand of each council in the country to create a centralized market for the small-scale farmers’ and Pastoralist products whereby prices of crop products are set, controlled, and monitored by the government. Figure 7 below describes the findings of the data collected from the small-scale farmers and

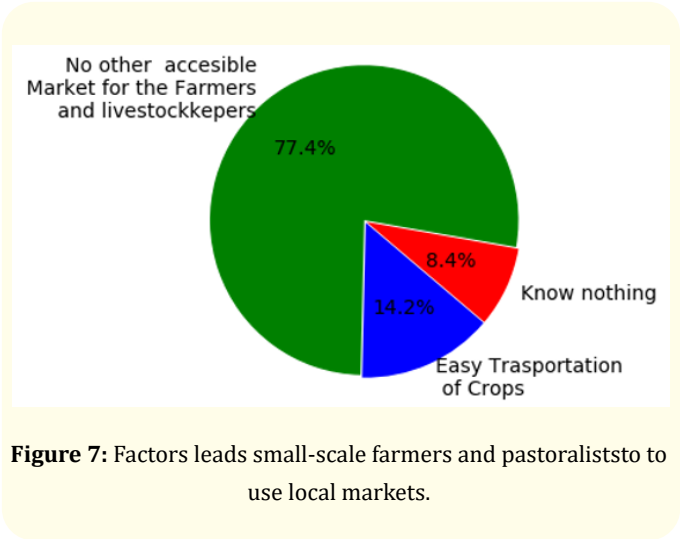


Figure 7: Factors leads small-scale farmers and pastoralists to use local markets.

Pastoralists.

Furthermore, the study wanted to discover knowledge on why most small-scale farmers sell their crop products to the brokers in Kiswahili their known as Walanguzi before harvesting. The study randomly collected data from small-scale farmers and crop businessmen to identify factors. After data analysis, results show that 87.2% of the respondents said that, they sell their crops to the brokers on farms before post-harvesting time to get capital that can facilitate them to prepare their farms for the next season, 9.3% of the respondents said they sell their crops to the brokers on farms before post-harvesting time to get quick money for sustaining their basic needs such as paying school fees for their children, while 3.5% the respondents said they do not have any concrete factors that drive them to sell their crops to the brokers on farms before harvesting. Figure 8 shows respondents’ responses on why they sell their crops before harvesting.

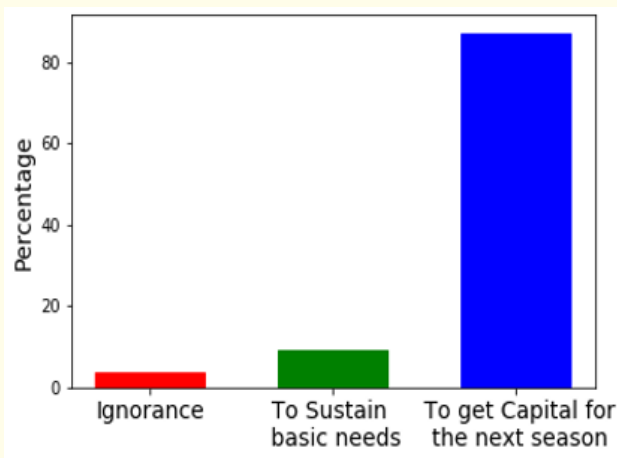


Figure 8: Respondents' response on selling crop products before harvesting.

Conclusion and Recommendations

Based on the findings discovered above, the study concluded by recommending the government under the Ministry of Agriculture to use their agricultural officers to train the small-scale farmers and Pastoralists on the application of modern agricultural technology to effectively maximize the production of crops and animals with less costs. The government through the Ministry of agriculture should implement centralized farmer's markets in each ward or council to enhance the reliability of the sources of agricultural information regarding prices of the product they produced. Furthermore, the government should support the small-scale farmers and pastoralists by giving them capital to facilitates processes of agriculture production and animal keeping.

Acknowledgments

The author of this study wishes to extend his sincere gratitude to President Samia Suluhu Hassan for her kindly strategic plan of improving the livelihood of small-scale farmers and pastoralists in the country by allocating a dedicated agricultural budget for agricultural activities [13]. The study acknowledges the high integrity of Prime Minister Honorable Kassim Majaliwa Majaliwa by instructing the public to stop selling crop products using an extra volume. Moreover, the study acknowledges great efforts of the minister of agriculture Prof. Adolf Faustine Mkenda, and other former ministers for being at the frontline for innovating the sector of agriculture and animals to raise the livelihood of the small-scale

farmers and Pastoralists in the country to fulfill the United Nations' sustainable development goals by 2030.

Conflict of Interest

This study has no conflicts of interest.

Bibliography

1. Anderson J and Gershon F. "Handbook of Agricultural Economics". 3 (2007): 2343-2378.
2. Mbiha ER and Ashimogo GC. "Challenges and Opportunities of Organic Agriculture in Tanzania". *Global Agro-Food Trade and Standards* (2010): 101-119.
3. Chongela J. "Contribution of Agriculture Sector to the Tanzanian Economy". *American Journal of Research Communication* 3.7 (2015): 58.
4. URT. The United Republic of Tanzania: Agricultural sector development program (2016): 1-55.
5. Tanzania UR of, Program ASD, II) PT (ASDP). Agricultural Sector Development Program (2017).
6. United Republic P of T. The problem of prices of farmers' produce in Tanzania (2018).
7. Tanzania UR of, Agriculture M of. Mkakati wa taifa wa usimamizi wa mazao baada ya kuvuna 2019 -2029 (2019).
8. URT. Agricultural Sector Development Strategy-II 2015/2016-2024/2025. United Republic of Tanzania (2016).
9. URT. Tanzania Osaka Alumni Kitabu Cha Mbinu Bora (2012).
10. Highlands S. Impact of Agricultural Research Done in the Past Twenty Years for Selected Commodities in the Eastern and Southern Highlands.
11. Na A., *et al.* Jarida maalum. Tanzania (2020).
12. ANSAF. Agriculture Sector Development Strategy (ASDS) 2 (2010).
13. YaH., *et al.* Hotuba Ya Waziri Wa Kilimo; Mheshimiwa Prof. Adolf Faustine Mkenda (Mb); Kuhusu Makadirio Ya Mapato Na Matumizi Ya Fedha Ya Wizara Ya Kilimo Kwa (2022).

Volume 3 Issue 8 August 2021

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